



## Juice Plus+

*What it is and why we should take it*

Only whole foods – fruits and vegetables – can provide balance. Antioxidants work together in ways that we have just begun to understand. If you are deficient in one and have an excess of the other, the balance is wrong. You cannot take them as isolated supplements; they cannot work together in the ways nature intended.

Taking isolated vitamin or antioxidant supplements is like putting a quarterback on the football field without an offensive line; you're not going to win many games. It's like an orchestra where you have a French horn that's too loud; you're not going to have good music.

The only *proven* path of prevention of disease is whole food nutrition. Fruits and vegetables are the natural, balanced source of antioxidants. It takes the whole team of players – the whole orchestra of instruments – the whole food array of antioxidants and other nutrients – to get the benefit.

So where do you start? Begin by recognizing that putting more raw, fresh fruits and vegetables into your diet is important. In the real world, however, conforming to this discipline is not only unlikely, it's highly impractical! We lack the time. It's inconvenient. Some of the most nutritious vegetables (like kale) don't taste good. And it's expensive – \$50 to \$70 a week per adult – to purchase these component fruits and vegetables.

For those who wish a less-expensive, scientifically proven, equally or even more effective substitute nutritional regimen, we are recommending **JUICE PLUS+**, a whole food concentrate.

**JUICE PLUS+** is real, whole food, not just another isolated vitamin or antioxidant supplement. **JUICE PLUS+** adds to your daily diet **15** of the most nutrient-dense, vine-ripened fruits and vegetables and **2** grains, produced without herbicides, pesticides, or additives and free of all contaminants. In the patented **JUICE PLUS+** formula, the salt, water, and sugar are removed. The remaining fruit and vegetable powders are then placed in a capsule. The WHOLE FOOD remains intact, including the fiber, as nature intended. Some have called **JUICE PLUS+** “nature in a capsule.”

**JUICE PLUS+** provides a vital nutritional support system for an individual's diet. You can increase

your intake of raw fruits and vegetables without changing your eating habits, without the hassle of shopping and trying to find foods that may not be in season, without having to taste unfamiliar or unpleasant food. And best of all, at an affordable price. **The cost per week for an adult is about \$10.**

**JUICE PLUS+** is the next best thing to actually eating 15 fresh, raw fruits and vegetables and 2 grains every day. To learn more about the vital role fruits and vegetables play in disease prevention and to review the research on **JUICE PLUS+**, visit my website by going to [www.drworkmd.com](http://www.drworkmd.com) and following the link to the Shopping area.

All fruits and vegetables used in **JUICE PLUS+** are grown within U.S. borders under the strictest of U.S. Department of Agriculture guidelines. To insure the highest quality, only well-matured fruits and vegetables are selected for **JUICE PLUS+**. The soil remains on the produce until after it arrives at the processing site and is tested for herbicides, pesticides, and other contaminants.

All fruits and vegetables are chilled, hand sorted, and carefully washed prior to juicing in their one-of-a-kind, refrigerated juicer. No detergents are used. This process ensures that all ingredients are never exposed to the high temperatures that destroy so much of the nutritional value of fruits and vegetables, like when cooking them. The raw juice is monitored for pH, sugar content, bacteria, yeast, mold, pesticides, and herbicides.

During the proprietary water removal process, temperatures and pressures are carefully monitored. The finished powder is tested for moisture content, bacteria, yeast, mold and the absence of pesticides and herbicides. Any batch not meeting these criteria is rejected by the company. The final stage involves blending and encapsulation. The product is tested for and must meet their strict criteria for all known vitamins and minerals as well as enzyme activity.

Prior to final release, the quality assurance data on each batch are reviewed to ensure the product is safe, efficacious, and pesticide and herbicide free. The finished capsules undergo a process to guarantee that each capsule is within one percent (1%) potency of any randomly selected capsule.

National Safety Associates, Inc. (NSA), Memphis, Tennessee, markets and distributes **JUICE PLUS+**

throughout the United States and in over 30 other countries. **JUICE PLUS+** products are made by Natural Alternatives, Inc., San Marcos, California, for NSA.

### What are the latest research findings?

There has been some recent research published in the Journal of the American College of Cardiology May 21, 2003 issue that demonstrated that subjects taking **Juice Plus+** for **28 days** were protected against detrimental cardiovascular effects of eating a high-fat meal, in this case a 900-calorie, fast food meal containing 50 grams of fat.

The nutritional components of fruits and vegetables provided by **Juice Plus+** “appear to help blood vessels retain their ability to expand in response to increased blood flow, even after a high-fat meal,” according to the official American College of Cardiology press release announcing the study results.

This research was a follow-up study to previous work that showed that consuming a high-fat meal causes constriction of major arteries and restriction of blood flow by half, an impairment that lasts up to five hours after consuming the meal. The University of Maryland researchers, Gary D. Plotnick, M.D. and Robert A. Vogel, M.D., discovered that fatty foods impair the responsiveness of the inner lining of blood vessels, known as the endothelium. Diminished endothelial reactivity can also be an early sign of atherosclerosis.

Dr. Plotnick theorized that a high-fat meal, which increases triglycerides and free fatty acids and a lot of fats in the blood, causes oxidative stress, and then the oxidative stress causes the endothelium to become abnormal. So the research team set out to determine whether adding a wide range of antioxidants from fruits and vegetables to combat the oxidative stress – in the form of **Juice Plus+** - would have a positive impact on the endothelium and resulting blood flow.

The University of Maryland study was double-blind and placebo-controlled: test subjects were randomized to receive capsules containing both **Juice Plus+ Garden** and **Orchard Blends** alone; **Juice Plus+ Garden, Orchard** and **Vineyard Blends**; or placebo capsules.

After taking the capsules daily for **four weeks**, the blood vessels of subjects who received **Juice Plus+ Garden** and **Orchard Blend** were better able to respond to changes in blood flow compared to the blood vessels of volunteers who received placebo cap-

sules. **The combination of all three types of Juice Plus+ capsules virtually eliminated the negative cardiovascular effect of eating the high-fat meal<sup>1</sup>.**

“The University of Maryland study is the latest addition to a growing body of Juice Plus+ research,” explains John Blair, Vice-President of Product Research and Development for NSA, the maker of **Juice Plus+**. Previous research published in peer-reviewed medical journals showed that taking **Juice Plus+** delivers significantly increased quantities of key antioxidants into the blood stream<sup>2</sup> and can help strengthen the immune system<sup>3</sup> (University of Arizona), reduce DNA damage<sup>4</sup> (Brigham Young University) and reduce the levels of harmful homocysteine in the bloodstream<sup>5</sup> (University of Sydney).

With all of the research that has been done with Juice Plus+ demonstrating its effectiveness and bioavailability, frankly I do not understand why anyone would not take it. Heart disease is the #1 killer in America today. Ten years from now it will still be #1. It is the #1 killer in the world. I have attended many lectures on the effects of cholesterol on the blood vessels and every one of them mentioned that oxidative stress is the starting point of the damage that occurs with a high fat American diet. This oxidative stress is not just destroying your blood vessels.<sup>6</sup> This reaction also is involved with the aging process in your body and is intimately involved with the damage that is done by diabetes.

So if oxidative stress is a large part of aging and is also a major factor in heart disease, and research has repeatedly demonstrated that **Juice Plus+** has been able to greatly reduce and even eliminate oxidative stress in individuals who take it for more than 28 days,

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1 Plotnick, GD, et.al. Effect of supplemental phytonutrients on impairment of the flow-mediated brachial artery vasoactivity after a single high-fat meal. *Journal of the American College of Cardiology*, 41(10), 2003, pp 1744-1749.

2 Wise, J. et.al. Changes in Plasma Carotenoid, Alpha-Tocopherol, and Lipid Peroxide Levels In Response to Supplementation With Concentrated Fruit and Vegetable Extracts: A Pilot Study. *Current Therapeutic Research* Vol 57, No 6, June 1996

3 Inerra, P., et.al. Immune function improves during fruit and vegetable extract supplementation. *Abstract to be presented at the 38th Annual Meeting of the American Society of Cell Biology.*

4 Smith, MJ, et.al. Supplementation with fruit and vegetable extracts reduces DNA damage in the peripheral lymphocytes of an elderly population. *Abstract to be presented at the 38th Annual Meeting of the American Society of Cell Biology.*

5 Samman, S. et.al. A Mixed Fruit and Vegetable Concentrate Increases Plasma Antioxidant Vitamins and Folate and Lowers Plasma Homocysteine in Men. *Journal of Nutrition* 133: 2188-2193, 2003.

6 Devjit Tripathy, D et al. Elevation of Free Fatty Acids Induces Inflammation and Impairs Vascular Reactivity in Healthy Subjects *Diabetes* 52: 2882-2887.

I can't see why someone would NOT take it. I have heard the complaint that it is "too expensive", yet it is less than \$10 per week. And I would suggest that when you start taking **Juice Plus+**, you no longer need to take a multivitamin pill.

Probably the most exciting part of this research and the products that are available is the availability of children's versions. These are either chewable or in a "gummi" type of chewable. All are actually quite tasty and your children/grandchildren would take them the same way (twice a day).

This would mean that your children, who are already showing the beginning signs of heart disease on autopsy, could get a large dose of bio-available antioxidants and phytonutrients everyday, thereby relieving the oxidative stress and the damage that would have been done.

It makes sense that it is easier to *prevent* damage from occurring rather than to try and *repair* the damage and "backtrack". Since we are much older and there has been a significant amount of damage when we start taking **Juice Plus+**, **Juice Plus+** is *stopping any further damage from occurring* but cannot repair the damage that has been done. You will need to do other supplements and medications to reverse the plaque build-up. But children would have very little plaque (yes, they do get plaque at a young age) and therefore, stopping the progression of the disease and eating proper healthy foods would allow the child to start off their adult years in excellent health.

Realizing the above, I immediately placed my entire family on **Juice Plus+** and have never thought twice about taking the product.

In addition to the standard **Juice Plus+**, there is a new product known as "**Vineyard Blend**" that contains a wealth of polyphenols and bioflavonoids from nine different berries and grapes as well as green tea extract and some amino acids. This blend has been tested also in the Plotnick study with the effect of the high fat diet on arterial stiffness. This blend was the third arm of the group, i.e., placebo (control), **Juice Plus+** only, **Juice Plus+** with **Vineyard Blend**. As you remember, the third group showed close to no response to the high fat meal. This, however, does not give you license to eat and drink anything you want in a bacchanal of food and drink.

Other products available through **Juice Plus+** include **Juice Plus+ Complete**. This is a powder mix for shakes. Flavors include Dutch Chocolate and French Vanilla. These shakes have a large quantity of fruits and vegetable extracts along with unrefined carbohydrates for energy that will not release too quickly into your bloodstream. I personally use vanilla soy milk along with the **JP+ Complete**, frozen fruit and natural peanut butter to make a wonderful breakfast drink. To blend it better, I use a Vita-Mix blender, which can be purchased at [www.vitamix.com](http://www.vitamix.com), to ensure that the entire mix is blended. Please understand that I drink this *in addition to* the **JP+** that I have twice a day and *not instead of* the capsules.

If you are interested in making a significant impact on your health and your children's/grandchildren's health in one of the simplest ways possible, then taking **Juice Plus+** is (and I chose this word carefully) *vital* to your overall health plan.

You can either order it through the front desk or go online to my website at [www.drworkmd.com](http://www.drworkmd.com) and order it there. In addition, that link will take you to the NSA/**Juice Plus+** website, which will give you more information on how it is made.

Again, I want to state...this product should be the baseline of your nutrition. If you need more vitamins or antioxidants, you will need to take those too, but **Juice Plus+** will give you the excellent foundational nutrition that you need to function *biochemically* at your best.